



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,735	11/08/2001	J. Douglas Child	TI-32321	5053

23494 7590 08/04/2004

TEXAS INSTRUMENTS INCORPORATED  
P O BOX 655474, M/S 3999  
DALLAS, TX 75265

EXAMINER

MAI, TAN V

ART UNIT	PAPER NUMBER
----------	--------------

2124

DATE MAILED: 08/04/2004

2

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/035,735

Applicant(s)

CHILD ET AL.

Examiner

Tan V Mai

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. The abstract of the disclosure is objected to because superfluous language is used in this paragraph (i.e., "[t]he present invention discloses"). Correction is required. See MPEP § 608.01(b).

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

3. The drawings are objected to because the label "42A" (Fig. 2A) should be -43-- , i.e., see specification, page 10, line 8, "multi-line area **43**". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim language is vague and indefinite. For instance, although the preamble of independent claims claim a "device / method ... for teaching procedures for solving mathematical problems", the claims fail to recite the necessary the "teaching procedures" feature(s). The term "may include" (claim 1, line 7) is indefinite.

As per dependent claim 20, the claimed language seems to be incomplete . Clarification is requested.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bunsen '652.

As per independent claim 16, Bunsen discloses, e.g., see Figs. 1 & 3, the hand-held computing device substantially as claimed, including: multi-line display (111), processor (301), keyboard (307) and memory (304). It is noted that Bunsen does not specifically detail the claimed steps; however, Bunsen 's Figs. 4-42 show the equivalent steps, e.g., Figs. 4 and 16 show "determining a master group" and "storing at least one problem linked list", respectively. Therefore, Bunsen's calculator could be capable of selecting one of the "said mathematical problems" and solving it. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to design the claimed invention according to Bunsen's teachings because the calculator is capable of selecting one of mathematical problems and solving it as claimed.

As per dependent claim 17, Bunsen shows the claimed feature.

As per dependent claims 18-19, the claims add "input/output port" features. These features are old and well known in the art for communicating between hand-held calculator with other electronic devices.

As per dependent claim 20, Bunsen 's device is a hand-held computing device.

As per dependent claims 21-23, Bunsen shows the claimed features because the calculator can add or delete formulas.

7. Claims 1-15 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cited references are art of interest.

9. The following is an examiner's statement of reasons for allowance: the recorded references do NOT teach or suggest the novel "said 'operations' link list **not limited to a mathematical operation which leads to a solution of said selected mathematical problems**" feature as recited in independent claims 1 and 7.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan V. Mai whose telephone number is (703) 305-9761. The examiner can normally be reached on Tue-Fri from 6:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki, can be reached on (703) 305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are:

After-final	(703) 746-7238
Official	(703) 746-7239
Non-Official/Draft	(703) 746-7240.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



TAN V. MAI  
PRIMARY EXAMINER